



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,691	03/19/2004	Harald Portig	2003-0363.02/4670-243	9160

7590 01/12/2006

LEXMARX INTERNATIONAL, INC.
ATT: JOHN J. McARDLE, JR.
740 WEST NEW CIRCLE ROAD
LEXINGTON, KY 40550

EXAMINER

JAGAN, MIRELLYS

ART UNIT	PAPER NUMBER
----------	--------------

2859

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,691

Applicant(s)

PORTIG ET AL.

Examiner

Mirellys Jagan

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 13, 14 and 20-39 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-19 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the information disclosure statement (IDS) submitted on 11/23/05 have been crossed off and not initialed because the references have been previously cited by the Examiner in the PTO-892 of 8/10/05.

Election/Restrictions

2. Applicant's traversal of the restriction requirement is on the ground(s) that the Examiner did not assert that the claims of Group I and II are independent or distinct, and that there is no burden on the examiner to search both Groups I and II because subclass 110 must be searched as a matter of course whenever subclass 111 is searched, i.e., the Examiner will necessarily search subclass 111 in addition to subclass 110 when searching either group of claims.

This is not found persuasive because the examiner stated in paragraph 2 of the last Office action the reasons why Groups I and II are distinct following MPEP 806.05(e), and because a search of subclass 110 for Group I does not require a search of subclass 111 for Group II. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2859

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 7-10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,535,705 to Asakura et al [hereinafter Asakura].

Asakura discloses an image forming apparatus having a housing (22) and a cartridge unit removably mounted on the housing, the apparatus comprising:

a pivot member (at pivot point) fixed to the housing;

a first arm (130) pivotally mounted in the housing about the pivot member, the arm being in contact with a the cartridge unit (ridge);

a second arm (132), the first and second arms contacting the cartridge (ridge) at opposite ends thereof; and

a force generating member (spring) mounted in the housing and contacting the arm so as to urge the arm to pivot about the pivot member and press against the cartridge unit;

whereby the force exerted on the cartridge by the arm will vary according to the point of contact between the cartridge unit and the arm; the arm includes a contact member having a longitudinal extent and the cartridge unit contacts the arm along the contact member; the cartridge unit includes a protrusion in the direction of the arm such that contact between the cartridge unit and the arm occurs at the protrusion; the force exerted on the cartridge by the arm will vary according to the position of contact of the protrusion along the contact member; the arm includes a force receiving member, the force receiving member and the contact member extending from the pivot member at a generally right angle; the cartridge includes a developer roller (26) operative to develop a latent image by supplying toner thereto; and the variable force

Apparatus unit by the arm contributes to the nip force between the developer roller and the conductive drum (32) (see figures 1, 13A, 13B, and 14; column 6, lines 45-51; column 6, lines 45-59; column 6, line 66-column 7, line 15; and column 11, lines 40-57).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakura.

Asakura discloses an apparatus having all of the limitations of claims 5 and 6, as stated above in paragraph 4, but is silent as to the dimensions of the arms, and the particular force exerted by the by the arm on the cartridge unit relative to the force exerted by the generating member, and therefore does not disclose the force exerted by the arm on the cartridge being from about 45% to about 150% of the force of the force generating member, or the contact member having a length of about 16mm.

However, Asakura does teach that the spring biases the arms against the cartridge with a force sufficient to provide a desired nip between the roller and drum, and that it is beneficial to maintain the nip between the roller and the drum at a proper position in order to obtain high image quality, and thee spring-biased arms of Asakura are arranged such that the proper nip is maintained between the roller and drum (see column 6, line 57-column 7, line 15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the length of the arms in order to provide a different pressure against the cartridge and thus a different nip between the drum and roll as necessary to maintain a proper nip between the roller and drum, as disclosed by Asakura, in order to obtain a high image quality. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the length of about 16mm since this particular length of about 16mm claimed by Applicant is considered to be the “optimum” value of the arm length that a person having ordinary skill in the art at the time the invention was made would have been able to determine using routine experimentation based on the desired accuracy, and since it has been held that discovering an optimum value of a result-effective variable involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the force of the arm against the cartridge relative to the force generated by the force generating member in order to also provide a different pressure against the cartridge and thus a different nip between the drum and roll as necessary to maintain a proper nip between the roller and drum, as disclosed by Asakura, in order to obtain a high image quality. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a force from about 45% to about 150% of the force of the force-generating member, since it has been held that, where the general conditions of a claim disclosed in the prior art, discovering the “optimum range”, in this case the optimum force for maintaining the nip, involves only routine skill in the art. See *In re Aller*, 105 USPQ 233 (CCPA 1995).

Allowable Subject Matter

7. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The Examiner's statement of reasons for the indication of allowable subject matter for claim 11 is presented in the last Office action, dated 8/10/05.
9. Claims 15-19 are allowed.
10. The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose or suggest the following in combination with the remaining limitations of the claims:

An image forming apparatus comprising at least one removable cartridge having two protrusions, such that each arm exerts a second force on the cartridge unit through a protrusion (claim 15).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

11. Applicant's arguments with respect to claims 15-19 have been fully considered and are persuasive. The rejection of claims 15-17 and 19 has been withdrawn.

12. Applicant's arguments with respect to claims 1-10 and 12 have been fully considered but are not persuasive. Applicant's arguments that Asakura does not anticipate claim 1 because Asakura does not disclose a pivot member fixed to the housing of an image forming apparatus, and therefore cannot possibly disclose a first arm pivotally mounted about the pivot member, are not persuasive. Claim 1 states "An image forming apparatus having a housing and including a cartridge unit removably mounted in the housing", wherein a pivot member is fixed to the housing. Asakura discloses an image forming apparatus having a housing (22) having a pivot member fixed to the housing and including a cartridge unit removably mounted in the housing such that the arms press against a ridge of the cartridge unit, as shown in figures 13a, 13b, and 14, and therefore anticipates claim 1.

In addition, Applicant's arguments that Asakura does not anticipate claim 1 because Asakura does not disclose that a force exerted on the toner cartridge by the first arm varies according to the point at which the first arm contacts the cartridge because the levers contact the cartridge at a specific engagement point, and as such, whatever force the levers might exert on the cartridge is uniform as it occurs only at the engagement point, are not persuasive. Applicant discloses that that a force exerted on the toner cartridge by the first arm varies according to the point at which the first arm contacts the cartridge, which is at a single specific engagement point as shown in figures 1 and 2, for example. The one engagement point (24) can be constructed

Art Unit: 2859

(shifted) so that it is at a different location (24', 24'') to contact the arm at a different location, which will vary the force exerted on the toner cartridge by the arm. Accordingly, in Asakura, shifting the location of the contact point between the arm and the cartridge unit, e.g., by shifting the location of the arm's protrusion that contacts the cartridge along the length of the arm, will vary the force exerted on the cartridge by the arm, as disclosed by Applicant and claimed in claim 1.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

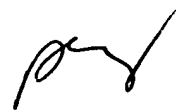
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 11AM to 5PM.

Art Unit: 2859

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
January 6, 2006



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800